

ISKANDARYAN, Ashot Arutyunovich; BELAYA, T.P., red.

[Sampling apparatus for gases and liquids] Probootborniki
gazov i zhidkosti. Moskva, Izd-vo "Energiia," 1964. 36 p.
(Biblioteka po avtomatike, no.98) (MIRA 17:5)

BEIAYA, T.P., inzh.

Frequency (ChTU-1) type remote control and signaling device. Trudy
VNIIE no.7:78-90 '58. (MIRA 16:12)

PROCESSED AND REFERENCED

10

Amino sulfonamide compounds of the thiazole series.

I. Ya. Petrovskii and T. S. Belaya. *Comp. rend. acad. sci. U.R.S.S.* 40, 235-8(1943)(in English).--Attempts at prep. 3-acetamido-4-methyl-5-thiazolesulfonyl chloride by treating 2-acetamido-4-methylthiazole with excess H_2SO_4Cl resulted in formation of *N*-acetyl-4-methyl-2-thiazolesulfamyl chloride (I), m. 126-7°. Reaction of I with various bases in excess pyridine yielded the corresponding acetyl sulfamamides (II) in 60-80% yields. II (R = H) m. 168-9°, highly active against staphylococci *in vitro*, *Ac deriv.* m. 225-6°; II (R = Ph) m. 139-40° (activity not given), *Ac deriv.* m. 197-8°; II (R = 2-pyridyl) m. 209-10°, no activity, *Ac deriv.* m. 225-6°; II (R = 2-thiazolyl) m. 215-16°, no activity, *Ac deriv.* m. 226-7°. 4-Methyl-2-thiazolesulfamic acid was active against staphylococci, but less so than its amide.

$$\begin{array}{c} MeC.N : CNAcSO_2Cl \\ | \\ CH-S \\ (I) \end{array}$$

$$\begin{array}{c} MeC.N : CNAcSO_2NHR \\ | \\ CH-S \\ (II) \end{array}$$

I. Kuhn
Thiomentaldehyde. Reynold C. Fuson and Chris E. Best. *J. Am. Chem. Soc.* 67, 155(1945).--Menthylaldehyde (24 g.) in 250 ml. abs. EtOH, satd. with dry HCl and treated with HCl and H_2S for 2 hrs. at 0-5°, gives 8.5 g. of thiomentaldehyde (I) (as the trimer), m. 186-7°. I (1.64 g.), heated with 1.4 g. Cu bronze at 220-30° for 30 min., gives 0.55 g. of 1,2-dimethylcyclohexene. C. J. West

METALLURGICAL LITERATURE CLASSIFICATION

EDOM SYNOBIVA										FROM BOMIAR									
SAPORO 02					SAPORO MIP ONY 001					SOLLISTON					SOLLIST ONY 101				
U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U

METALLURGICAL LITERATURE CLASSIFICATION

BELAYA, T. S.

"On some Sulphonamide Compounds of the Thiazole Series." Postovsky, I. J. and
Belaya, T. S. (p. 350)

SO: Journal of General Chemistry (Zhurnal Obshchei Khimii) 1944, Volume 14, no. 4-5.

NEKHAYCHIK, N.; KARAZANOVA, Ye.; BELAYA, V.

Prevention of diphtheria. Zdrav. Belor. 6 no. 5:54 My '60.
(MIRA 13:10)

(BEREZINA DISTRICT—DIPHTHERIA)

BELAYA, V.M., ROMANYUK, L.M., LANDISBERG, YA. I.

Tuberculosis

Changes of cardiac sounds in tuberculosis during treatment with artificial pneumoperitoneum. Probl. tub. No. 2, 1952.

9. Monthly List of Russian Accessions, Library of Congress, ¹⁹⁵² ~~August 1953~~. Unclassified.

LANDISBERG, L.Ya.; BBLAYA, V.M.

Operation to induce an artificial paralysis of the diaphragm and pneumoperitoneum in the treatment of a spontaneous pneumothorax.
Probl.tub. 34 no.4:64 J1-Ag '56. (MLRA 9:11)

1. Iz Kremenetskogo protivotuberkuleznogo dispansera ternopol'skoy oblasti.
(LUNGS--SURGERY)

POLYMER AND PROPERTIES INDEX

11

M

Belaya, V.S.

***Polarographic Method for the Analysis of Nickel-Plating Baths. V. S. Belaya, N. I. Puchenkina, and I. A. Korshunov (Zashch. Lab., 1945, 11, 644-648; Zh. Kh., 1946, 66, 3763).—(In Russian).** To determine Zn⁺⁺ in Ni-plating electrolytes, neutralize 100 ml. of the electrolyte with 2.5% NH₄OH (to litmus paper), add 8-10 ml. of 0.1N-HCl until a piece of Congo red paper acquires a brown colour, heat to 30°-60° C., pass H₂S slowly, let the precipitate stand in a warm place for 2-3 hr., filter the sulphides, wash the precipitate on the filter with H₂S water, treat with 20 ml. of HCl (1:8), collecting the filtrate in a 50-ml. measuring flask, wash the filter several times with hot water, collecting all wash waters in the same flask, boil the contents of the flask (to remove H₂S), bring the vol. of the solution to 15 ml. cool, and add 25 ml. of 2N-NaOH and water to the mark; add a crystal of Na₂SO₄, to 5-10 ml. of the solution in the electrolyser (to remove dissolved O), and determine the Zn polarographically by means of a curve constructed with the Zn concentration plotted on the X-axis and the height of the Zn wave on the Y-axis. To determine Pb⁺⁺ and Cd⁺⁺ in Ni plating electrolytes, place 1-2 g. of NH₄ citrate in a 25-ml. measuring flask, add the electrolyte to the mark; pass H₂ through 5-10 ml. of the solution in the electrolyser for 10-20 min., and make a polarogram. The polarization curve has 2 waves, corresponding to the reduction of Pb and Cd, respectively. The Pb and Cd contents are determined by calibration curves. To determine Ni in Ni-plating electrolytes, pour 1 ml. of the electrolyte, 10 ml. of 4N-NH₄OH, and 50 ml. of NH₄Cl in a 100-ml. measuring flask, and add water to the mark; add 1 ml. of 0.3% gelatin solution to 5-10 ml. of this solution in the electrolyser and determine the Ni polarographically by means of a calibration curve. To determine sulphate in Ni-plating electrolytes, add 1.5-3.0 ml. of water to 1-6 ml. of the electrolyte and observe the position of

418-114 METALLURGICAL LITERATURE CLASSIFICATION

82000 80-170

82000 80-170

82000 80-170

82000 80-170

BELAYA, YE.

USSR/Miscellaneous - Rural radio

Card 1/1

Pub. 89 - 6/27

Authors : Bogdanov, G.; Belaya, E.; and Golutzkiy, I.

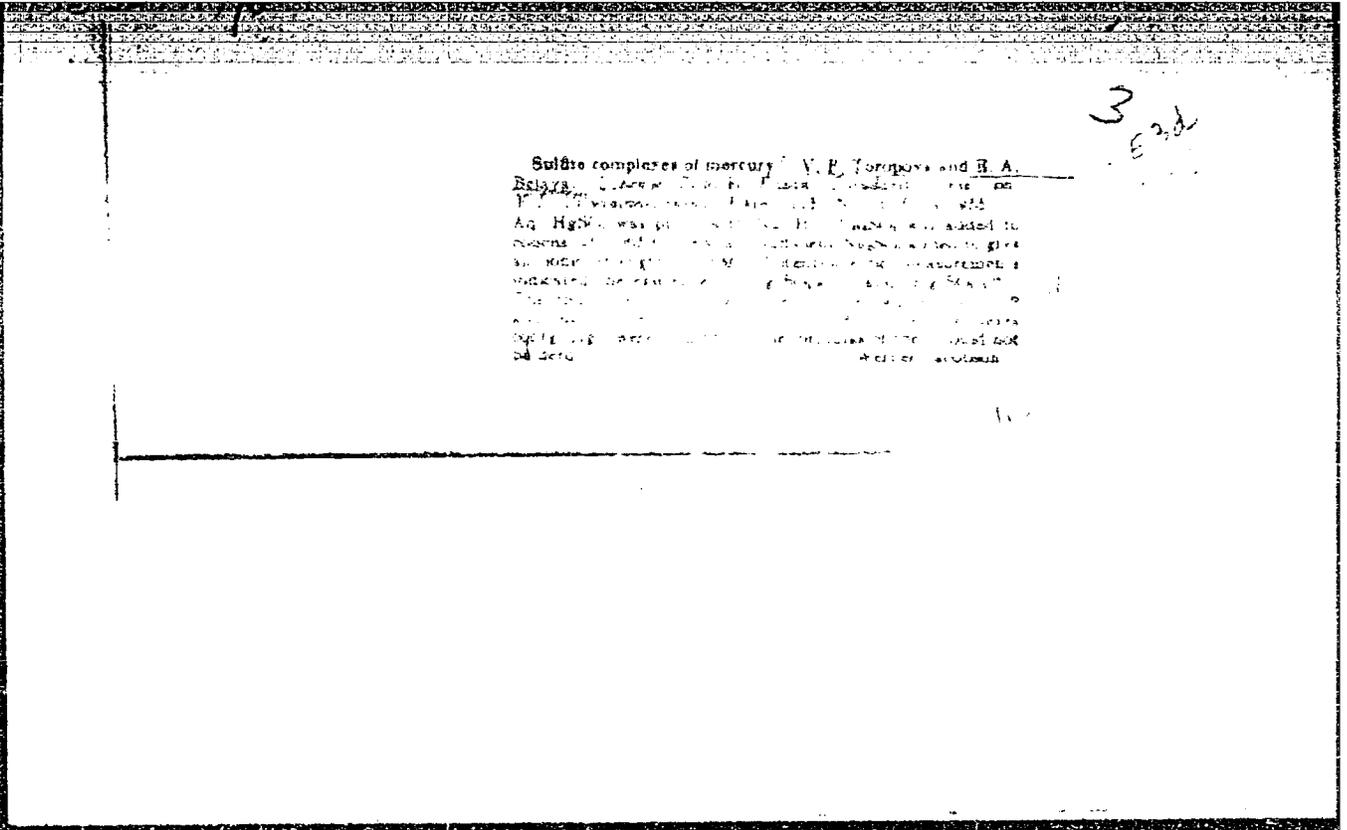
Title : Radio in new agricultural districts

Periodical : Radio 1, 10-11, Jan 1955

Abstract : An increase in the number of radio centers at collective farms and villoges in new agricultural districts of Altai and Kazakhstan regions is pointed out. Also, an increase in the number of individual radio receiving sets among the collective farm workers of the same district is reported. The Kytmanovsk and Volchikha districts of Altai region and Kytmanovsk region are mentioned.

Institution:

Submitted :



LOPATINA, Zh.M.; BELAYA, Ye.K.

Resistance of dysentery bacilli to antibiotics and sulfonamides
and its significance in the clinic. Vrach.delo no.4:429-430
Ap '60. (MIRA 13:6)

1. Infektsionnaya bol'nitsa Dnepropetrovska.
(DYSENTERY) (ANTIBIOTICS) (SULFONAMIDES)

BELAYA, Yu.A.

Two cases of habitual dislocation of the patella. Vest.rent.
i rad. no.3:84-86 My-Je '55. (MLRA 8:10)

1. Iz kafedry rentgenologii i radiologii (sav.prof. V.A.
D'yachenko) II Moskovskogo meditsinskogo instituta imeni
I.V.Stalina)

(KNEE, dislocation,
of patella, habitual)
(DISLOCATION,
patella, habitual)

BELAYA, J.A.

GEKKER, V.D.; BELAYA, J.A.; MELNIK, E.T.

Experimental keratoconjunctivitis as a model for the study of
dysentery. J. Hyg. Evidem., Praha 1 no.1:70-74 1957.

1. Gamaleya Institute of Epidemiology and Microbiology, A.M.S.,
U.S.S.R., Moscow.

(DYSENTERY, BACILLARY, microbiology,

Enterobacteriaceae, keratoconjunctivitis in
guinea pigs induced with strains isolated in dysentery)

(KERATOCONJUNCTIVITIS, experimental,

Enterobacteriaceae isolated from dysentery infect.
of guinea pigs)

USSR/Microbiology - Microbes Pathogenic for Man and Animals. F
Bacteria. Bacteria of the Intestinal Group.

Abs Jour : Ref Zhur Biol., No 22, 1958, 99369

Author : Gekker, V.D., Delaya, Yu.A., Mel'nik, Ye.G.

Inst : -

Title : Experimental Dysentery Keratoconjunctivitis.

Orig Pub : Zh. mikrobiol., epidemiol. i immobiol., 1957, No 7,
110-114

Abstract : The conjunctival sac of the eye of a guinea pig was infected with a loop of a 24 hour agar culture of various microbes of the intestinal typhoid group. 290 cultures were investigated; of those, 260 were dysenteric. Recently isolated dysenteric cultures (DC) of various types produced a positive test: on the day following the infection an acute conjunctivitis developed with a large amount of purulent secretion; the cornea became cloudy within 48 hours and ulcerations appeared. The eye

Card 1/3

USSR/Microbiology - Microbes Pathogenic for Man and Animals. F
Bacteria, Dacteria of the Intestinal Group.

Abs Jour : Ref Zhur Biol., No 22, 1958, 99369

not develop. Thus the acquired immunity was deprived of type-specificity and did not extend to the other eye. The authors suggest that immunity in the dysenteric infection of the eye is to some degree related to the monolateral immunity described by Bernam. It is the opinion of the authors that the biological model described by them is useful for the differentiation of freshly isolated DC, from laboratory ones in the selection of vaccine strains and for the study of numerous problems concerning dysentery. -- M.A. Gruzman.

Card 3/3

USSR/Microbiology - Microbes Pathogenic for Man and Animals. F
Bacteria. Bacteria of the Intestinal Group.

Abs Jour : Ref Zhur Biol., No 22, 1958, 99370

(up to 1 year). Immunity to repeated infection with a culture of a homologous type in the same eye was preserved for no more than 6 months. The type-specificity of the immunity was noted following repeated infection with microbes of the Grigor'yev-Shiga types; a marked cross immunity to infection with microbes of Sonne, Flexner and Newcastle was observed. The character of the endured infection had an effect upon the development of immunity; infection with a more virulent (freshly isolated) culture conferred a more marked immunity. Agglutinins appeared in the blood of the guinea pigs by the 10-20th day of the disease; their titer was higher in animals with the chronic form of conjunctivitis.

Card 2/2

BELAYA, Yu.A.

Use of cats for experimental dysentery. Zhur.mikrobiol.epid. i immun.
29 no.4:77-80 Ap '58. (MIRA 11:4)

1. Iz Instituta epidemiologii i mikrobiologii imeni Gamalei AMN SSSR.
(DYSENTERY, BACILLARY, experimental,
in cats (Rus)

BELAYA, Yu. A.

YANOVSKAYA, B.I., BELAYA, Yu.A., YUDINA, Yu.K.

Pathogenesis of dysentery. Report No.1: Effect of dysenterial intoxication on ascorbic acid metabolism in white rats [with summary in English]. Biul. eksp. biol. i med. 45 no.5:25-28 My '58 (MIRA 11:6)

1. Gruppya pri deystvitel'nom chlene AMN SSSR B.A. Lavrove i iz Otdela meditsinskoy mikrobiologii Instituta epidemiologii i mikrobiologii imeni Gamaleya AMN SSSR, Moskva. Predstavlena deystvitel'nym chlenom AMN SSSR B.A. Lavrovym.

(SHIGELLA DYSENTERIAE,

toxic, eff. on vitamin C metab. in various organs (Rus))

(VITAMIN C, metabolism

eff. of Shigella dysenteriae toxin (Rus))

BELAYA, YU. A.; GEKKER, V. D.

"Data on the study of the pathogenesis of dysentery (search for biological models)."

Report submitted at the 13th All-Union Congress of Hygienists, Epidemiologists and Infectionists. 1959

BELAYA, Yu.A.

Data for the study of biological properties of dysentery strains
invested on chick embryos and in experimental dysenterial kerato-
conjunctivitis. Zhur.mikrobiol.,epid.i immun. 30 no.12:44-47 D '59.
(MIRA 13:5)

1. In Instituta epidemiologii i mikrobiologii imeni Gamalei AN
SSSR.

(SHIGELLA culture)
(DYSENTERY BACILLARY exper.)
(KERATOCONJUNCTIVITIS exper.)

KHOMYAKOV, Yu.S.; ROSOVSKAYA, Z.Ye.; BELAYA, Yu.A.

Some difficulties in the diagnosis of metastases of chorioepithelioma
in the lungs. Akush. i gin. 36 no.3:28-30 My-Je '60.

(MIRA 13:12)

(LUNGS—CANCER)

BELAYA, Yu.A.

Regularities in the multiplication of freshly isolated and laboratory strains of dysenterial bacteria in chick embryos. Zhur.mikrobiol., epid. i immun. 33 no.3:65-68 Mr '62. (MIRA 15:4)

1. Iz Instituta epidemiologii i mikrobiologii imeni Gamalei AMN SSSR. (SHIGELLA DYSENTERIAE)

BELAYA, Yu.A.

Preserving the virulence of dysenterial bacteria by passing them through the conjunctival sac of guinea pigs. Zhur. mikrobiol., epid. i immun. 33 no.1:18-21 Ja '62. (MIRA 15:3)

1. Iz Instituta epidemiologii i mikrobiologii imeni Gamalei AMN SSSR.

(SHIGELLA DYSENTERIAE)

BELAYA, Yu.A.

Study of labile antigens of dysentery bacteria by diffusion in agar.
Zhur. mikrobiol., epid. i immun. 40 no. 8:59-64 Ag '63. (MIRA 17:9)

1. Iz Instituta epidemiologii i mikrobiologii imeni Gamalei AN SSSR.

BELAYA, Yu.A.

"Immuno-electrophoretic analysis of Shigellae."

report presented at 4th Intl Cong, Hungarian Soc of Microbiologists, Budapest
30 Sep-3 Oct 64.

Inst of Epidemiology & Microbiology im Gamal'ya, AMS USSR, Moscow.

BELAYA, Yu.A.

Infection and postinfection immunity in experimental dysentery
keratoconjunctivitis. Zhur. mikrobiol., epid. i immun. 41
no.1:44-48 Ja '64. (MIRA 18:2)

1. Institut epidemiologii i mikrobiologii imeni Gamalei AMN SSSR,
Moskva.

BELAYA, Yu.A.

Immunoelectrophoretic analysis of the antigen structure
of *Shigella flexneri* and *Shigella boydii*. Zhur. mikrobiol.,
epid. i immun. 42 no.7:6-12 J1 '65. (MIRA 18:11)

1. Institut epidemiologii i mikrobiologii imeni Gamalei
AMN SSSR.

BELAYA, Yu.A.

Use of immunoelectrophoresis in agar for the study of the
somatic antigen of dysentery bacilli. Zhur.mikrobiol.,
epid. i immun. 42 no.9:55-61 S '65.

(MIRA 18:12)

1. Institut epidemiologii i mikrobiologii imeni Gamalei
AMN SSSR. Submitted April 10, 1964.

BELAYA, Yu.A.

Immunoelectrophoretic analysis of antigens to Newcastle
dysentery bacilli. Zhur.mikrobiol., epid. i immun. 42
no.12:130-134 D '65. (MIRA 19:1)

1. Institut epidemiologii i mikrobiologii imeni Gamalei
AMN SSSR.

GEKKER, V.D.; RAVICH-BIRGER, Ye.D.; BEJAYA, Yu.A.

Place of Newcastle bacilli in the classification of Shigella.
Zhur. mikrobiol., epid. i immun. 43 no. 1:17-19 Ja '66
(MIRA 19:1)

1. Institut epidemiologii i mikrobiologii imeni Gamalei AMN
SSSR. Submitted June 18, 1964.

ACH, Ye.L.; BELAYA, Zh.N.; BERDYUSHA, G.G.

Oxazolocyanines. Part 2: Asymmetrical oxazolocyanines with
phenyl radicals in oxazole rings. Ukr. khim. zhur. 37 no.10:
1065-1069 '64. (MIRA 17:11)

1. Institut organicheskoy khimii AN UkrSSR.

SYCH, Ye. D.; BELAYA, Zh. N.

Isomeric nitro-2-methylbenzothiazoles and cyanine dyes derived
from the. Ukr. khim. zhurn. 28 no.3:362-367 '62.
(MIRA 15:10)

1. Institut organicheskoy khimii AN UkrSSR.

(Benzothiazole) (Cyanines)

SYCH, Ye.D.; BELAYA, Zh.N.

Synthesis of some oxazole derivatives. 2-mercapto- and 2-methylmercapto-4-aryl oxazoles. Zhur. ob. khim. 33 no.5: 1507-1512 My '63. (MIRA 16:6)

1. Institut organicheskoy khimii AN UkrSSR.
(Oxazole)

CHEBRIKOVA, Z.M.; BELAYA, Zh.V.; LOSHKAREV, M.A.

Effect of temperature on the potentials of cobalt and nickel oxide
electrodes. Trudy DKHTI no.16:55-62 '63. (MIRA 17:2)

BELAYAKOV, L.N.

Wave oscillations of the ice cover. Priroda 52 no.3:115 '63.
(MIRA 16:4)

1. Arkticheskiy i Antarkticheskiy nauchno-issledovatel'skiy
institut, Leningrad.
(Ice—Elastic properties)

BELAYENKO, F.A.

DECEASED

1964

Mining
Blasting

G.163

BELEYAN, M.S.

Use of the precipitation reaction in poliomyelitis. Vop.virus.
5 no.3:297-303 My-Je '60. (MIRA 13:9)

1. Laboratoriya immunologii Instituta po isucheniyu poliomyelita
AMN SSSR, Moskva.

(POLIOMYELITIS)

BELAYEV,

SEE ALSO: BELYAYEV

BELAYEV, A. N.

AID P - 3711

Subject : USSR/Electricity

Card 1/1 Pub. 29 - 16/25

Author : Belayev, A. N., Eng.

Title : ~~_____~~ Drying out of current transformers with d-c

Periodical : Energetik, 12, 21, D 1955

Abstract : The author found in his operational experience several cases in which the secondary windings of current transformers showed a sharp decline in insulation. He recommends the drying out of these windings with d-c without demounting the equipment and without interrupting operation. One connection diagram.

Institution : None

Submitted : No date

See also: BELYAYEV, A. N. (Electronics)

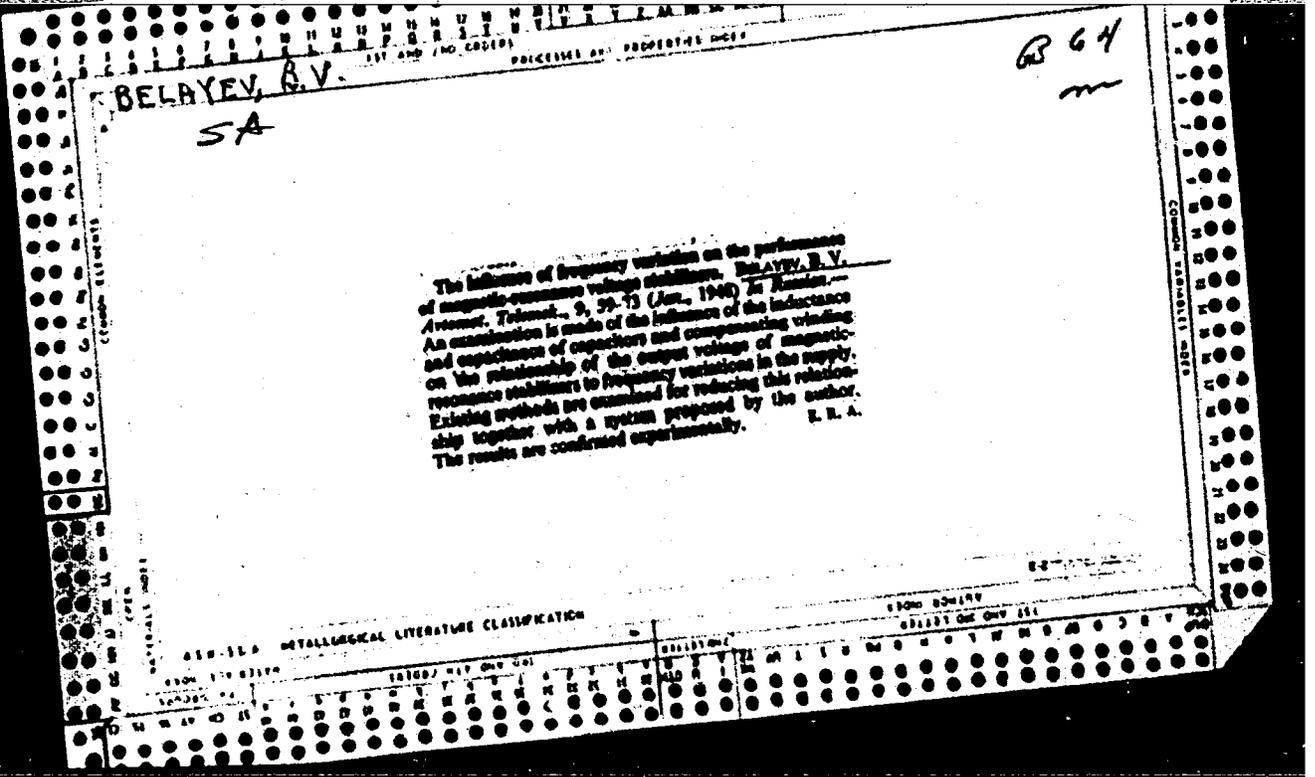
BELAYEV, A. A.

Summaries of papers presented at the XXVI Congress of Surgeons of the USSR, Moscow, 20 - 27 January 1955, included:

Constant Aspiration of the Gastro-Intestinal Contents by Means of a Thin Gastric Tube in Cases of Acute Intestinal Obstruction.

A. A. BELAYEV (See: also BELYAYEV, A. A., surgeon).

SOURCE: ~~ISSUE 4-16013~~ (Official Publication) Unclassified.



18.9550

77509
SOV/80-33-1-18/49

AUTHOR: Belayev, G. I.

TITLE: Concerning the Oxidation of Steel During the Firing of Boron-Containing and Boron-Free Base Coat Enamels

PERIODICAL: Zhurnal prikladnoy khimii, 1960, Vol 33, Nr 1, pp 94-101 (USSR)

ABSTRACT: The author established that blistering and burning of porcelain enamel during the firing is caused by the excessive oxidation of steel, the over-saturation of the enamel melt with iron oxides, and the crystallization of the ground coat (ZhPKh, 1957, Vol 30, p 7). Steel oxidation consists of two processes, namely, gaseous corrosion and electrochemical corrosion; the latter plays a considerable role in the formation of the coating. Gaseous corrosion ($3\text{Fe} + 2\text{O}_2 \longrightarrow \text{Fe}_3\text{O}_4$) occurs when oxygen penetrates through the still porous unfused ground coat, and also during the firing, when the gas bubbles rise through the fused coating and

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expose the metal to the action of atmospheric oxygen. Oxygen diffusing from the melt to the metal surface contributes also to gaseous oxidation. Electrochemical corrosion is caused by the molten base coat which at high temperature becomes a strong electrolyte and forms multielectrode elements with the metal surface. This corrosion can be represented by the following processes: (1) the anodic process; i.e., the migration of the metal into the melt:

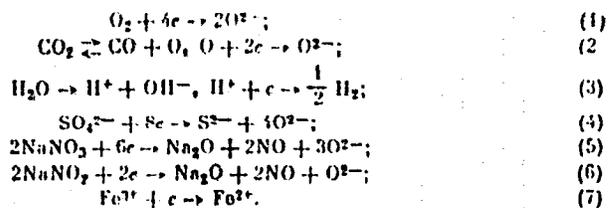


(2) the flow of electrons from the anodic to the cathodic zones; (3) the cathodic process; i.e., the reduction of the depolarizer by the electrons. The depolarization can take place according to the following reactions (Z PKh, 1957, Vol 30, p 11) which are accompanied by gas liberation in the metal-enamel contact zone:

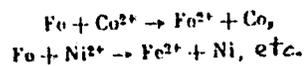
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The electrochemical oxidation proceeds according to
the reactions:



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Microphotographic investigation showed that the rate of corrosion increased with the basicity of the melt. Borate melts, being more acid, cause considerably less corrosion than silicate melts. The corrosion rate also increased with the oxygen potential of the melt; i.e., the ratio of O-ions to Si-ions. As to the burns in the enamel, the author assumed that they are caused mainly by the oversaturation of the ground coat melt with Fe_2O_3 . Bivalent iron oxides are less harmful than trivalent oxides, due to the higher solubility of the former in the silicate melt. It was reported previously (Tr. GOI, 1956, Vol 24, p 145) that the iron oxides in silicate and borate glasses and enamels are in a state of equilibrium expressed by the equation $Fe^{2+} \rightleftharpoons Fe^{3+} + e$. This equilibrium shifts to the left with increasing acidity, other conditions remaining equal, and the amount of bivalent iron increases. The coefficient of relative acidity K_k of silicate melts expressed as

Card 4/6

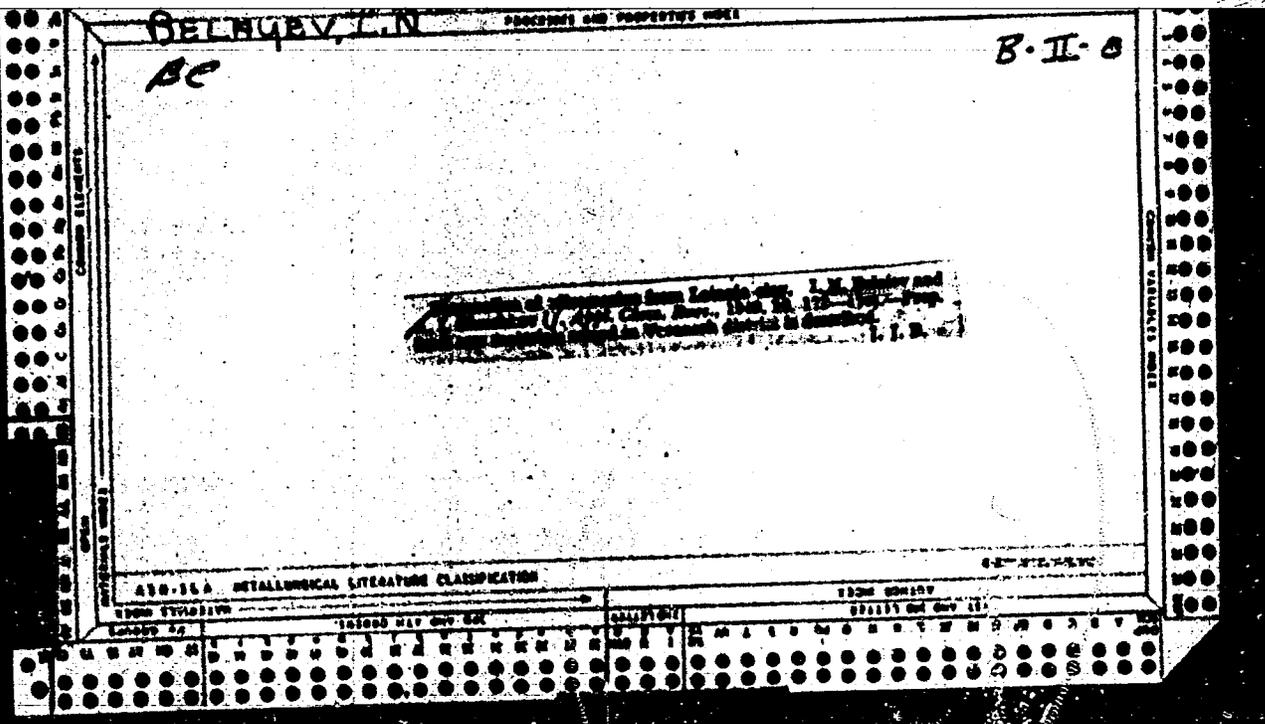
Concerning the Oxidation of Steel During
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$$K_k = \frac{Fe^{2+}}{Fe^{3+} + Fe^{2+}}$$

can serve for estimating the acidic-basic character of the silicate or borate melts. The value of K_k changes from 0 to 1, depending on the concentration of Fe^{2+} and Fe^{3+} determined in percentages by means of chemical analysis. Plots of K_k vs oxygen potential showed that the amount of Fe^{3+} increases and that of Fe^{2+} decreases with the increasing value of the oxygen potential; i.e., the acidity of the melt decreases with increasing oxygen potential. Industrial borate frits contain considerably more Fe^{2+} than boron-free frits and have, therefore, a more acid character. Much less enamel burns were obtained, therefore, with borate frits than with .

Card 5/6



BELAYEV, I. N.

USSR/Electricity - Titanium

May 51

"Dielectric Properties of Various Types of Titanium Dioxide," I. N. Belayev, N. S. Novosiltsev, A. L. Khodakov, M. S. Shulman

"Zhur Tekh Fiz" Vol XXI, No 5, pp 547-551

Studies and tabulates dependence of dielectric properties on admixts, thermal treatment and frequency. Compares results with those obtained by Skanavi and Demeshina (cf. "Zhur Eksper i Teoret Fiz" 19, 3, 1949) and by Ksendzov (cf. "Zhur Tekh Fiz" 20, 117, 1950). Submitted 15 Oct 50.

LC

182150

BELAYEV, I. N.

USSR/Chemistry - Piezoelectric Substances Jun 52

"The Fusibility of the System $K_2CO_3-Na_2CO_3-BaTiO_3$,"
I. N. Belayev, M. L. Sholokhovich

"Zhur Prik Khim" Vol XXV, No 6, pp 657-662

The fusibility of the system $Na_2CO_3-K_2CO_3-BaTiO_3$ was investigated by the visual polythermal method through a temp range up to 1,200°. Fields of crystal of solid solns of sodium and potassium carbonates, occupying only 1.27% of the area of the system, and fields of crystal of barium titanate were detd. The system $Na_2CO_3-K_2CO_3-BaTiO_3$ is the stable cross section of the prism $Na, K, Ba || TiO_3, CO_3$.

218r38

~~BELAYEV, L.~~

~~From practice in the organization of work at machine accounting
stations. Bukhg. uchot 15 no. 4:52-55 Ap '58. (MIRA 11:5)~~

- ~~1. Nachal'nik mashinoschetnoy stantsii tresta "Gorlovskugol".
(Donets Basin--Coal mines and mining--Accounting)
(Machine accounting)~~

BELAYEV, S.V.

Making sumps at the Sokolovka Mine. Trudy Inst.gor.dela UFAN SSSR
no.7:99-105 '63. (MIRA 17:3)

BELAYEV, V.A.

Mechanisms for shifting billets in 12VA-6, 12VA-10, 12VA-12 cold headers. Kuz.-shtan.proizv. 5 no.8:43-44 Ag '63. (MIRA 16:9)

BELAYEVA, N.M.

Biological properties of *Rickettsia mooseri* after prolonged cultivation on the intestine of body lice. Zhur.mikrobiol.epid.i immun. 31 no.11:81-84 N '60. (MIRA 14:6)

1. Iz Instituta epidemiologii i mikrobiologii imeni Gamalei AMN SSSR,

(RICKETSIA)

BELEYEVA, Ye. M.

"Structural changes in water-soluble liver protein and blood serum proteins
in early stages of radiation damage"

paper presented at the Symposium on Biological Effects of Ionizing Radiation
at the Molecular Level (IAEA), 2-6 July 1962, *Prno. Czech.*

BELAYOVA, MARTA

BESELA, Jaromir

Czechoslovakia

First Internal/Medicine/Clinic (I. vnitřní klinika FU v Olomouci), Olomouc; Director: P. LUKL, MD.

Brno, Vnitřní lékařství, No 10, Oct 62, pp 1042-1047.

"The Influence of Body Position on Spirometric Measurements in Mitral Stenosis and its Relation to Hemodynamic Findings in the Lesser Circulation."

Co-author:

BELAYOVA, Marta, First Internal/Medicine/Clinic, Olomouc.

(2)

BELAZOVSKIY, M.Ya.; KNYAZYUK, L.V., inzh., retsenzent; ZAKHAROV,
B.P., inzh., red.

[Nondestructive testing methods] Nerazrushaiushchie metody
kontrolia. Moskva, Izd-vo "Mashinostroenie," 1964. 41 p.
(MIRA 17:7)

ZHIDELEV, Mikhail Aleksandrovich, starshiy nauchnyy sotr.; BEL'BURT,
B.Ye.; PROTASOVSKIY, G.A.; FIGANOV, I.S.; Primalni uchastiye:
KOVAL'SKIY, M.I.; SANDOMIRSKIY, I.G.; GIMRANOV, M.V.; TSIKALOV,
V.A., red.; POLUKAROVA, Ye.K., tekhn. red.

[Secondary school production training in mechanical engineering]
Proizvodstvennoe obuchenie v srednei shkole po mashinostroitel'-
nym professiiam; metodicheskoe posobie dlia prepodavatelei i in-
struktorov proizvodstvennogo obucheniia. Pod red. M.A.Zhideleva.
Moskva, Izd-vo APN RSFSR, 1962. 141 p. (MIRA 15:12)
(Technical education)

DILAKTORSKIY, M., doktor geol.-mineral. nauk; OYT, L.[Oit, L.];
BEL'CHENKO, A.

Anticorrosive bitumen coatings for reinforcing bars in oil-
shale ash concrete. Izv. AN Est. SSR, Ser. fiz. mat. i tekhn.
nauk 11 no.4:296-302 '62. (MIRA 16:1)

1. Institut stroitel'stva i stroitel'nykh materialov AN Estonskoy
SSR.

(Corrosion and anticorrosives)
(Reinforced concrete)

HEL'CHENKO, A.A.

Cutting head in stamping operations. Stan. 1 instr. 26 no.10:36
0'55. (MIRA 9:1)

(Machine-shop practice)

BEL'CHENKO, Anatoliy Yakovlevich; YAFSENKO, Georgiy Gavrilovich;
DUDNIK, P.Ye., inzh., retsenzent; NIKIFOROVA, R.A., inzh.,
red.; GORNOSTAYPOL'SKAYA, M.S., tekhn.red.

[Multiple machining of machine parts] Gruppovye metody
obrabotki detalei mashin. Moskva, Gos.nauchno-tekhn.isd-vo
mashinostroit.lit-ry, 1961. 182 p. (MIRA 14:12)
(Metalwork) (Machine-shop practice)

OYT, L. [Oit, L.]; DILAKTORSKIY, N., doktor geol.-mineral.nauk;
HEL'CHENKO, A.

Causes of the corrosion of reinforcing bars in shale-ash
concrete. Eesti tead akad tehn fuus ll no.3:221-228 '62.

1. Academy of Sciences of the Estonian S.S.R., Institute of
Building and Building Materials.

HEL'CHENKO, A.Ya.

A high-speed working-bench drill press of simple design. Stan.
i instr. 26 no.9:26 S '55. ' (MIRA 9:1)
(Drilling and boring machinery)

HEL'CHENKO, A.Ya.

~~_____~~
High-production cutting of small worms on automatic turret lathes.
Priborostroenie no.3:22 Mr '57. (MIRA 10:5)
(Gear-cutting machines)

REL'CHENKO, A.Ya., inzh.

Accelerated standardization methods based on standardization
of engineering processes. Energomashinostroenie 4 no.12:28-32
D '58. (MIRA 11:12)

(Standardization)

25(1)

SOV/117-59-11-9/35

AUTHOR: Bel'chenko, A.Ya.

TITLE: Dies for Cold Stamping With Non-Hardened Punches

PERIODICAL: Mashinostroitel', 1959, Nr 11, p 14 (USSR)

ABSTRACT: It is difficult to adjust hardened punches for high-class accuracy stampings, therefore some plants practice the use of non-hardened punches for parts of various materials like sheets steel of 0.1 to 0.25 mm thickness, cardboard, veneer, etc. The "dressing" of non-hardened punches consists in hammering their edges as shown in a drawing and trimming them in a lathe. This dressing is cheap. The author recommends the use of non-hardened punches. There is 1 set of diagrams.

Card 1/1



BEL'CHENKO, A.Ya., insh.

Improvement in the operation of grinding pipe fittings. Sudostroenie 25
no.2:61-62 F '59. (MIRA 12:4)

(Grinding and polishing)
(Marine pipe fitting)

BEL'CHENKO, A.Ya.

Turning drawing dies. Stan.1 instr. 30 no.3:38 Mr '59.
(MIRA 12:3)

(Dies (Metalworking))

GUSHCHIN, V.A.; BEL'CHENKO, A.Ya., inzh.Prinimal uchastiye SHAPOVALOV, I.I.[deceased]; KAMENETSKIY, V.Ya., inzh., otv. red.; GRINSHPON, F.O., red.; MALYAVKO, A.V., tekhn.red.

[Modernisation of equipment is an important means of technological progress; a bibliography]Modernizatsiia oborudovaniia - vazhnoe sredstvo tekhnicheskogo progressa; bibliograficheski ukasatel'. L'vov, Izd-vo L'vovskogo univ., 1960. 151 p. (MIRA 15:12)

1. Akademiya nauk URSS, Kiev. Biblioteka, Lvov. Viddil bibliografii.

(Bibliography--Technological innovations)

PHASE I BOOK EXPLOITATION

SOV/5935

TSK

Bel'chenko, Anatoliy Yakovlevich, and Georgiy Gavrilovich Yatsenko

Grupповyye metody obrabotki detaley mashin (Group Methods in Processing Machine Parts) Moscow, Mashgiz, 1961. 182 p. 12,000 copies printed.

Reviewer: P. Ye. Dudnik, Engineer; Ed.: R. A. Nikiforova, Engineer;
Tech. Ed.: M.S. Gornostaypòl'skaya; Chief Ed.: Mashgiz (Southern Dept.):
V.K. Serdyuk, Engineer.

PURPOSE: This book is intended for technical personnel of machine-building plants and engineering, design, and planning organizations.

COVERAGE: The book presents the scientific basis of group methods for processing machine parts. Group methods for manufacturing semiproducts and parts are described. Discussed are problems of planning and organizing group production methods, engineering standardization, accounting, and the determination of the economic advantage of these production methods. No personalities are mentioned. There are 14 references, all Soviet.

Card 1/8

GUSHCHIN, V.A.; KAMENETSKIY, V.Ya., inzh., otv. retsenzent;
BEL'CHENKO, A.Ya., inzh., otv. red.; KORETS, P.V.,
tekh. red.

[Automation of technological processes in the machinery industry; bibliographical index of literature published from 1957 to 1960] Avtomatizatsiia tekhnologicheskikh protsessov v mashinostroenii; bibliograficheskii ukazatel' (literatura za 1957-1960 gg.) L'vov, 1962. 390 p.

(MIRA 17:3)

1. Akademiya nauk URSR, Kiev. Biblioteka, Lvov.

BEL'CHENKO, A.Ya., inzh.

Using a model M-2 machine for the fitting in of equipment,
Sudostroenie 29 no.10:63-64 0 '63. (MIRA 16:12)

BELICHENKO, A.Ye.

Die for the simultaneous cutting of three different blanks.
Kuz.-shtam.proizv. 5 no. /:30-37 JI '63. (MIRA 16:9)

KAYNARSKIY, I.S.; DEGTYAREVA, E.V.; PINDRIK, B. Ye.; KUKHTENKO, V.A.;
KULAKOV, N.I.; BEL'CHENKO, B.I.; IVNITS'AYA, N.S.; SMORODA, I.M.;
SHAROV, M.F.; KOZIN, L.M.; KVASHA, A.S.; PELESHCHUK, M.I.; PRYAKHIN,
L.G.; LEVINA, L.I.; DANILOV, V.I.; DIDENKO, S.Yu. PROTSENKO, G.A.

Reducing dust formation from dinas bricks and dinas mortar.
Ogneupory 29 no.3:109-112 '64 (MIRA 17:3)

1. Ukrainskiy nauchno-issledovatel'skiy institut ogneuporov (for Kaynarskiy, Degtyareva, Pindrik, Kukhtenko).
2. Gosudarstvennyy institut po proyektirovaniyu predpriyatiy koksokhimicheskoy promyshlennosti (for Kulakov, Bel'chenko, Ivnit'skaya).
3. Vsesoyuznyy trest po stroitel'stvu i montazhu koksokhimicheskikh zavodov (for Peleshchuk, Pryakhin, Levina).
4. Ukrainskiy nauchno-issledovatel'skiy institut gigiyeny truda i professional'nykh zabolevaniy (for Danilov, Didenko, Protsenko).

BEL'CHENKO, D.I., Cand Med Sci -- (diss) "^{Suction} ~~Absorption~~ in
the digestive tract in experimental fever and hyperthermy."¹²
Len 1958, 12 pp (Min of Health RSFSR. First Len Med Inst im
Academician I.P. Pavlov. Chair of Pathological Physiology)
(KL, 32-58, 111)

- 58 -

BEL'CHENKO, D.I.

Depression of hexokinase activity by the blood serum of feverish animals. Vop. med. khim. 9 no.6:633-636 N-D '63.

(MIRA 17:10)

1. Kafedra patologicheskoy fiziologii Kalininskogo meditsinskogo instituta.

BEL'CHENKO, D.I.

Role of different segments of the alimentary tract in the excretion of radioactive calcium. Biul. eksp. biol. i med. 56 no.8:68-70 Ag '63. (MIRA 17:7)

1. Iz kafedry patologicheskoy fiziologii (zav. - dotsent R.N. Shastin) Kalininskogo meditsinskogo instituta. Predstavleno deystvitel'nym chlenom AMN SSSR P.D. Gorizontovym.

KOROVNIKOV, K.A., kand.med.nauk; SHASTIN, R.N., dotsent; SHKOLOVOY, V.V.,
assistant; BEL'CHENKO, D.I., kand.med.nauk

Changes in the activity of various enzyme systems under the
action of the endotoxin of Escherichia coli. Trudy KGMI no.10:157-
161 '63. (MIRA 18:1)

1. Iz kafedry patologicheskoy fiziologii (zav. kafedroy dotsent
R.N.Shastin) Kalininskogo gosudarstvennogo meditsinskogo instituta.

BEL'CHENKO, D.I., kand.med.nauk

Concentration capacity of the digestive glands in relation to
radioactive calcium. Trudy KGMI no.10:154-156 '63. (MIRA 18:1)

1. Iz kafedry patologicheskoy fiziologii (zav. kafedroy - dotsent
R.N.Shastin) Kalininskogo gosudarstvennogo meditsinskogo instituta.

BEL'CHENKO, D.I., kand.med.nauk; SHKOLOVOY, V.V., assistant; KOROVNIKOV, K.A.,
kand.med.nauk

State of some enzyme systems in experimental fever. Trudy KGM
no.10:162-164 '63. (MIRA 18:1)

1. Iz kafedry patologicheskoy fiziologii (zav. kafedroy - dotsent
R.N.Shastin) Kalininskogo gosudarstvennogo meditsinskogo instituta.

BEL'CHENKO, D.I., kand.med.nauk; SHLAPAKOV, V.V., student IV kursa

Changes in the lipoproteins of the blood serum of feverish animals. Trudy KGMI no.10:172-173 '63.

(MIRA 18:1)

1. Iz kafedry patologicheskoy fiziologii (zav. kafedroy - dotsent R.N.Shastin) Kalininskogo gosudarstvennogo meditsinskogo instituta.

BEL'CHENKO, D.I.

Modified hexokinase activity of the myocardium and skeletal muscles
in febrile states. Pat. fiziol. i eksp. terap. 8 no.4:23-26 J1-Ag '64.
(MIRA 18:2)

1. Kafedra patologicheskoy fiziologii (zav.- dotsent R.N. Shastin)
Kalininskogo meditsinskogo instituta.

ACC NR: AP6030800

(A,N)

SOURCE CODE: UR/0346/66/000/009/0087/0089

AUTHOR: Kolomakin, G. A. (Doctor of veterinary sciences); Krobchenko, M. I. (Director); Bel'chenko, G. A. (Veterinary doctor)

ORG: Kazakh Republic Veterinary Laboratory (Kazakhskaya respublikanskaya veterinarnaya laboratoriya)

TITLE: Precipitation reaction in agar gel in rabies

SOURCE: Veterinariya, no. 9, 1966, 87-89

TOPIC TAGS: animal disease, rabies, disease diagnosis, diagnostic method, precipitation reaction, gel, chemical precipitation

ABSTRACT: For three years the authors have used a reaction of precipitation in agar gel for rabies diagnosis which was developed in the Department of Epizootology of the Alma-Ata Zootechnical and Veterinary Institute. Standard histological methods were also used in rabies detection. This reaction did not give positive results for 96 animals dying from various causes or for 83 animals dying from other infectious diseases. However, positive precipitation-reaction results for 257 agricultural and wild animals were supported by positive diagnosis of rabies by other methods. The authors were most interested in the

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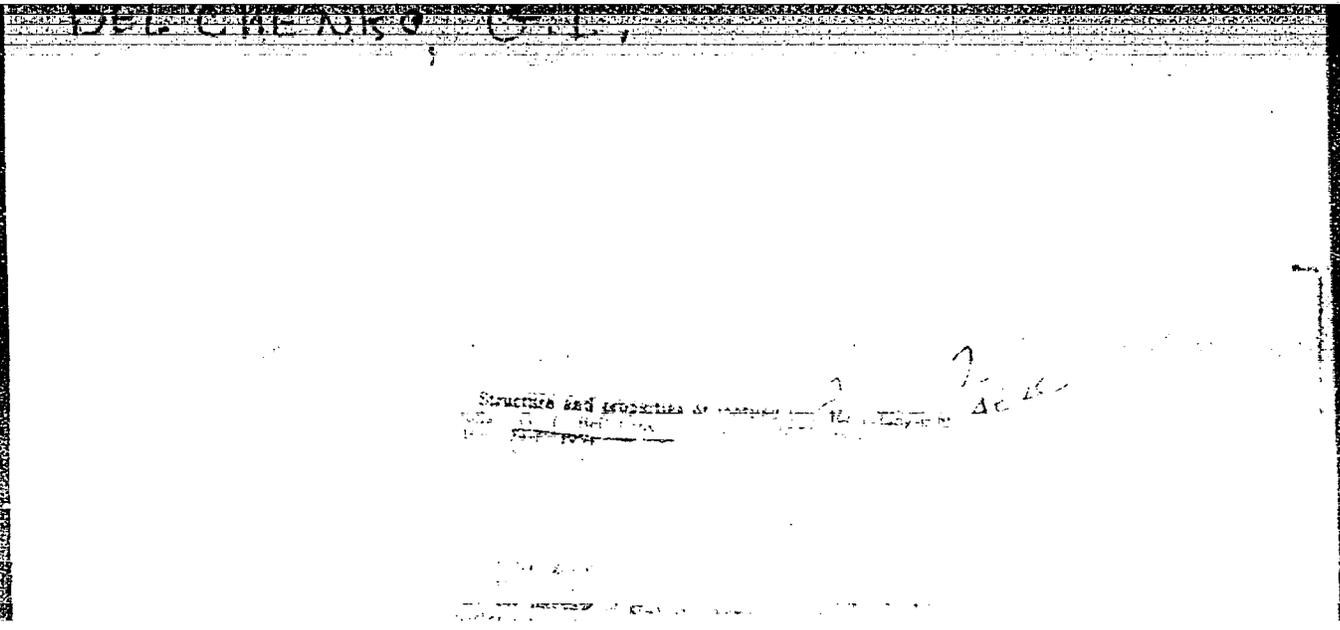
UDC: 619:616.988.21-077.34

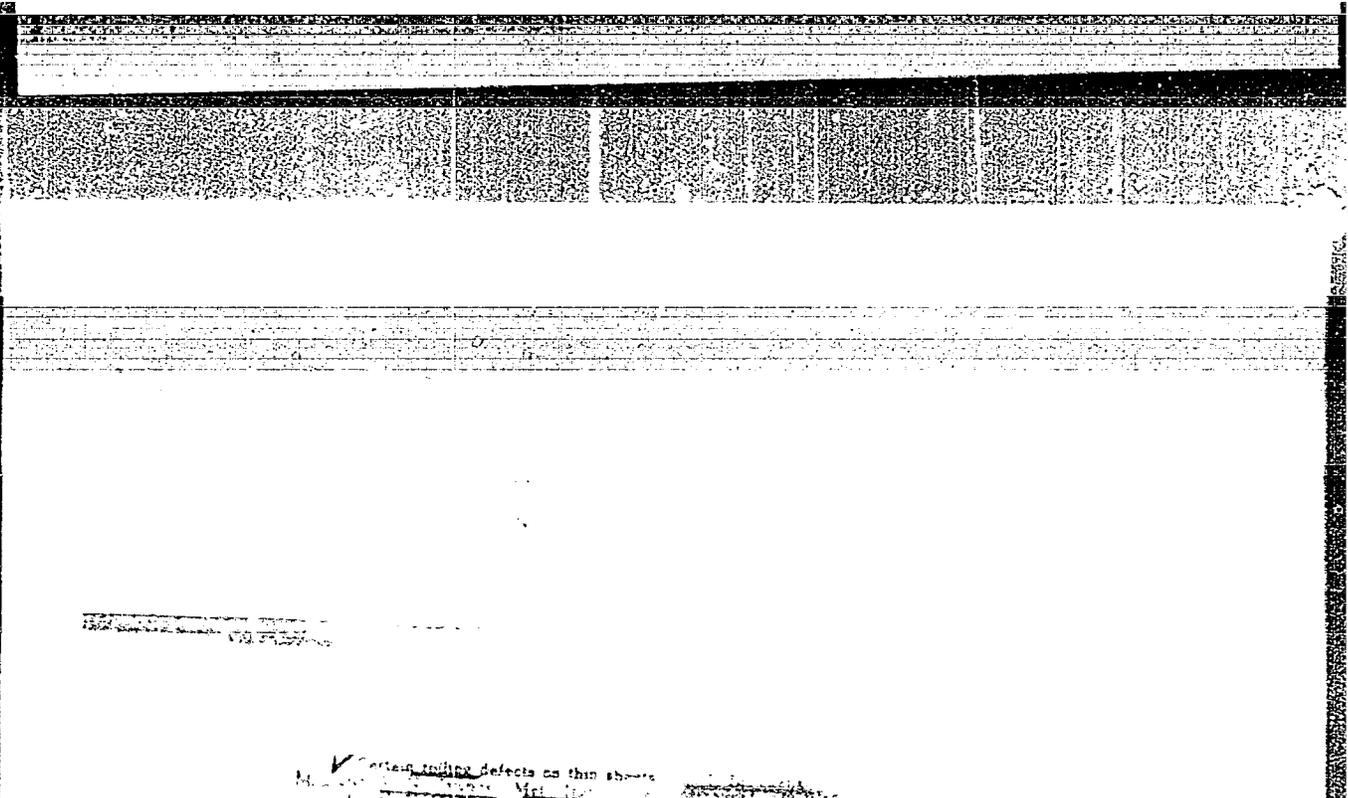
ACC NR: AP6030800

demonstrated high specificity of the method, particularly for cases in which other diagnostic methods, especially examination for Babes-Negri bodies, do not yield positive results. However, for a number of reasons (quality of gamma-globulin used in the reaction, precipitinogenic properties of the infective strain, and laboratory conditions), PR does not always yield positive results in confirmed rabies cases. The diagnostic accuracy of the PR is increased when separate suspensions are prepared from various parts of the brain, rather than one general suspension. No relationship was noticed between the degree of precipitinogenicity of the brains of rabid animals and the time of death of mice infected with their brain tissue. It is also suggested that better results may be obtained when ten, rather than six, infant mice are used for bioassay, as bioassay using six older mice, followed by PR of their brain tissue did not always confirm rabies diagnosis. PR using a good-quality gamma globulin showed results in as little as 24 hr. The method also shows potential for use with unfresh or frozen material. Negative PR does not, however, definitely indicate the absence of rabies virus. This method will be included in diagnostic studies of rabies. [WA-50; CBE No. 12]

SUB CODE: 06/ SUBM DATE: none/

Card 2/2





BUNIN, K.P.; GRECHNYI, Ya.V.; MALINOVKA, Ya.N.; TARAN, Yu.N.; BEL'CHENKO, G.I.;
POGREBNYY, E.N.; DANIL'CHENKO, N.M.; YATSENKO, A.I.; HEPIN, A.K.;
BARANOV, A.A.; SHPAK, T.M.

Is metastable austenite possible at a point higher than A_1 ?
Izv.vys.ucheb.zav.; chern.met. no.10:143-144 0'58.
(MIRA 11:12)

1. Dnepropetrovskiy metallurgicheskiy institut i Institut chernoy
metallurgii AN USSR.
(Austenite) (Phase rule and equilibrium)

S/148/63/000/001/009/019
E193/E383

AUTHORS: Bel'chenko, G.I. and Baranov, A.A.

TITLE: The effect of some elements on the tendency of steel to stick during hot deformation

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Chernaya metallurgiya, no. 1, 1963, 97 - 105

TEXT: The object of the present investigation was to study the effect of Mn (0.8 - 1.86%), Cr (0.19-17.5%), B (0.003-0.03%), Ti (0.063-0.91%), P (0.043-0.1%), Ni (27.6%) and Si (1.17-2.4%) on the tendency of steel to form pressure welds during hot-forming operations. The carbon content of the steels tested varied from 0.03-0.15%. The experiments were conducted on sandwiches made of thin (0.15-0.30 mm) polished strip specimens of each steel (four 50 x 12 mm strips alternating with four 38 x 12 mm specimens) held together by a high-chromium steel sleeve. The test pieces were heated to various test temperatures, compressed to various degrees of reduction in a specially designed apparatus and cooled in air. The strength of bond (if any) formed under these conditions was determined qualitatively by pulling apart the strips comprising
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The effect of

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E193/E383

a test piece. If the separation occurred at the contact interface, the bond was considered to be a result of sticking; when attempts to separate these strips resulted in a fracture away from the contact interface, it was considered that a welded bond had been formed. Apart from correlating the degree and temperature of deformation with the type and strength of the resultant bond, metallographic examination of the sandwiches and microhardness measurements were carried out. Alloys with low (0.48%) and high (1.86%) Mn contents had a low tendency to sticking and no welding occurred between strips of these materials even after high (40%) deformation at 950 °C. Sticking with the formation of relatively strong bonds occurred in the case of alloys containing 1.02 and 1.14% Mn, welded bonds being formed in this alloy in test pieces deformed to 20-30% reduction at 900-950 °C. Alloys with a low Cr content showed a tendency to form welds when deformed to about 30% reduction at 900-950 °C; no welding was observed in this material with a high (1%) Cr content, even when reduction of 30% was given to the test pieces. A strong tendency to sticking was observed in alloys containing boron; in some cases, the formation
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of welds occurred after 19% deformation at 950 °C. The phosphor-bearing alloys also showed a strong tendency to sticking, the formation of welds being observed at all the test temperatures (800 - 950 °C) after reductions ranging from 19 - 38%. In the case of Ti-bearing alloys, sticking and welding occurred at high temperatures (900 - 1 000 °C) and after heavy (30-40%) reductions. No welding occurred in high (1-2.5%) Si-containing alloys, the same applying to alloys containing large additions of Ni and Cr. In general, it can be concluded that the ability of the alloying elements studied to inhibit sticking during hot deformation decreases in the following order: Si, Ti, Mn (2%), P, B, Mn (1%). The fact that the heat of formation of oxides of these elements decreases roughly in the same order indicates that absence of welding and sticking is associated with the formation of tenacious films of stable oxides with low solubility in iron. There are 5 figures and 2 tables.

ASSOCIATION: Dnepropetrovskiy metallurgicheskii institut
(Dnepropetrovsk Metallurgical Institute)

SUBMITTED: January 24, 1961
Card 3/3

Bel'chenko, G.V.

USSR/Chemical Technology. Chemical Products and Their Application. J-3
Sulfuric Acid, Sulphur and Its Compounds.

Abs Jour: Referat Zh.-Kh., No 8, 1957, 27415

Author : M. Ye. Pozin, G.V. Bel'chenko
Inst :

Title : On the Question of Reduction of Nitric Acid Consumption in the
Nitrose Sulfuric Acid Process.

Orig Pub: Zh. prikl. khimii, 1956, 29, No 4, 506-511

Abstract: About 97% of the HNO_3 consumption by H_2SO_4 works is determined by the losses of N oxides (OA) in waste gases. The main cause of OA losses is that they are not prepared for the interception in the absorption zone of the tower installation (excess of NO as compared with the easily absorbed equimolecular mixture of $\text{NO} + \text{NO}_2$). Laboratory experiments were carried out in order to determine the dependence of the optimum initial oxidation degree $x_{\text{opt}} = c_{\text{NO}_2} / (c_{\text{NO}} + c_{\text{NO}_2})$ of nitrose gases supplied

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USSR/Chemical Technology. Chemical Products and Their Application.
Sulfuric Acid, Sulphur and Its Compounds.

J-3

Abs Jour: Referat Zh.-Kh., No 8, 1957, 27415

to the absorption towers on various factors. NO, as well as O₂ for the oxidation of a part of NO into NO₂ were fed into the oxidation space at the temperature of 20 + 0.5°; the amount of O₂ answered the preset oxidation degree, because the mixture of NO + NO₂ leaving the oxidation space did not contain O₂. This mixture was let through an absorption glass tube of 38.5 mm dia. with a porcelain head piece 400 mm high wetted with 76% aal chemically pure H₂SO₄. N₂ and O₂ also were fed into the column in order to dilute the nitrose gases to the necessary concentration. The contents of OA in gases leaving the column were determined with a photocolormeter. The experiment results showed that the losses of OA and the consumption of HNO₃ in the lead chamber process depended on the initial oxidation degree x₀. The losses can be reduced by feeding gas of x₀ < 0.5 into the absorption zone. The dependence of OA

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USSR/Chemical Technology. Chemical Products and Their Application.
Sulfuric Acid, Sulphur and Its Compounds.

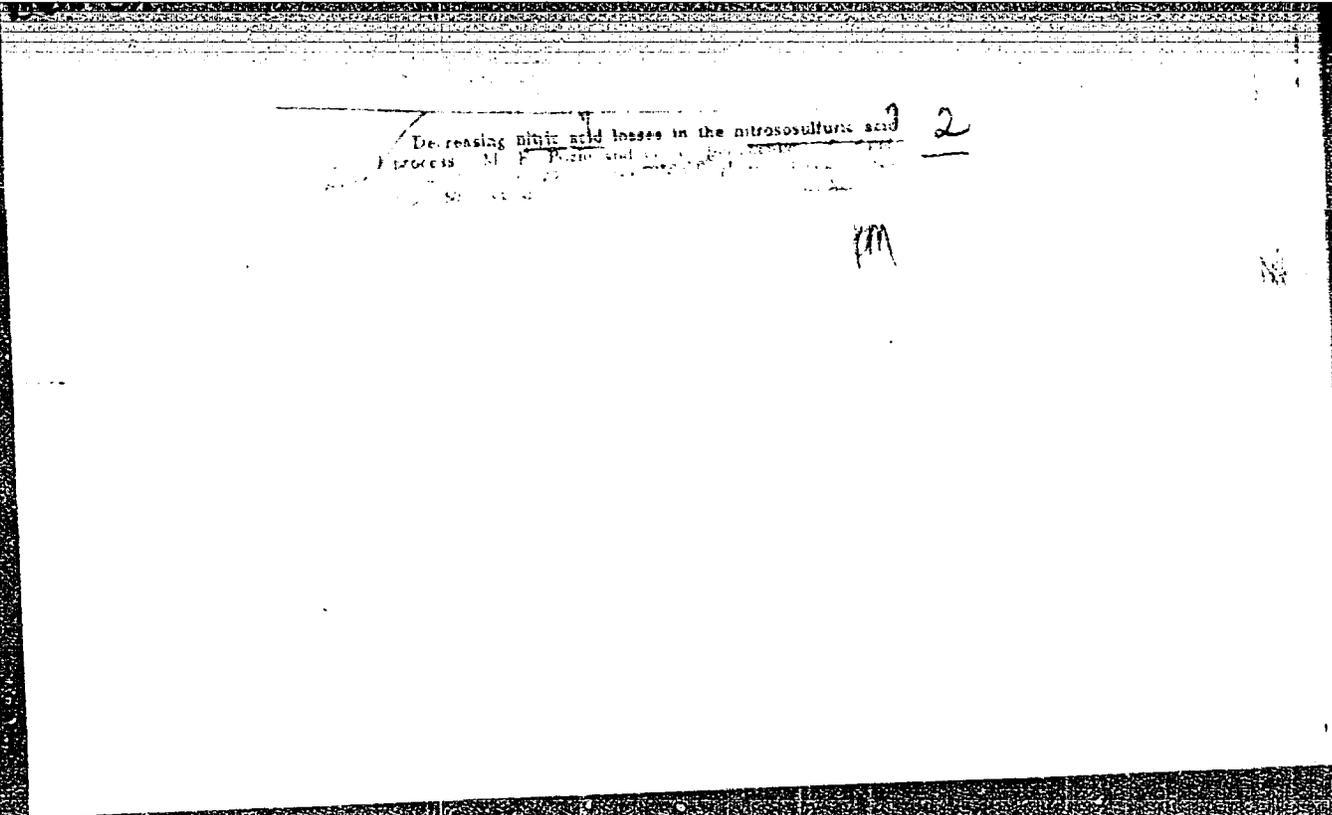
J-3

Abs Jour: Referat Zh.-Kh., No 8, 1957, 27415

content in waste gases on x_0 was expressed by curves with a sharp minimum at x_0 between 0.4 and 0.45 (depending on the initial composition of gases). The computations showed that the divergence of x_0 of 0.01 to either side increased the consumption of HNO_3 by 2 kg per 1 ton of H_2SO_4 .

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Bel'chenko, G.V.

USSR/Chemical Technology. Chemical Products and Their Application.
Sulfuric Acid, Sulphur and Its Compounds.

J-3

Abs Jour: Referat Zh.-Kh., No 8, 1957, 27414

Author : M. Ye. Pozin. G.V. Bel'chenko

Inst :

Title : Losses of Nitrogen Oxides in Waste Gas of Nitrose Sulfuric Acid
Systems.

Orig Pub: Zh. prikl. khimii, 1956, 29, No 7, 972-977

Abstract: The results of experiments with the installation (see next abstract) for the determination of the values of optimum initial oxidation degree x_0^{opt} of nitrose gases of various composition (3 to 9% of the mixture of NO + NO₂ and 5 to 10% of O₂) in case of head pieces of various hydraulic radii ζ are shown. It is established that the preparation of nitrose gases for absorption must be done taking into consideration the composition of gases and ζ . The greater the nitrosity of gases to be absorbed, the greater the oxida-

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USSR/Chemical Technology. Chemical Products and Their Application. J-3
Sulfuric Acid, Sulphur and Its Compounds.

Abs Jour : Referat Zh.-Kh., No 8, 1957, 27414

tion degree x_0 must be in order to reduce the losses of oxides (OA). The dependence of x_0^{opt} on ξ is a more complicated function depending also on the content of O_2 in gases. Thus, in case of 10% of O_2 , x_0^{opt} decreases with the increase of ξ at any gas nitrosity. Should the content of O_2 in gases decrease, this rule would be altered: in case of little nitrose gases and a small ξ , the magnitude of x_0^{opt} remains nearly without change. The minimum losses of OA in waste gases are secured at $x_0 < 0.5$ under the condition of a complete conversion of SO_2 in the producing zone and of the normal hydrodynamic regime in the absorption zone (i.e., that the complete head piece is wetted and the gases are distributed uniformly in it). $x_0 = 0.39$ to 0.46 under the conditions that have been studied. The experimental values of x_0^{opt} of nitrose gases before the absorption in case of various gas compositions and various ξ can be

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USSR/Chemical Technology. Chemical Products and Their Application.
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J-3

Abs Jour: Referat Zh.-Kh., No 8, 1957, 27414

used for the preparation of OA for the absorption with a view to
reduce their losses and the consumption of HNO_3 in H_2SO_4 manu-
facturing.

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BER'CHENKO, G.V.

POZIN, M.Ye., professor; KOPYLIV, B.A.; TUMARKINA, Ye.S.; BER'CHENKO, G.V.;
SIMONOV, G.A., redaktor; ERLIKH, Ye.Ya., tekhnicheskiy redaktor

[Practical manual on the technology of inorganic substances]
Rukovodstvo k prakticheskim zaniatiyam po tekhnologii neorganiches-
skikh veshchestv. Pod obshchei red. M.Ye. Pozina. Leningrad, Gos.
nauchno-tekhn. izd-vo khim. lit-ry, 1957. 291 p. (MLBA 10:7)
(Chemistry, Inorganic)

AUTHORS: Pozin, M. Ye., Kopylev, B. A., SCV/156-58-4-47/49
Bel'chenko, G. V., Tereshchenko, L. Ya.

TITLE: On the Rate and Mechanism of Nitric Acid Formation Under
Foam Conditions (O skorosti i mekhanizme obrazovaniya
azotnoy kisloty pri pennom rezhime)

PERIODICAL: Nauchnyye doklady vysshey shkoly. Khimiya i khimicheskaya
tekhnologiya, 1958, Nr 4, pp 794-798 (USSR)

ABSTRACT: Experimental investigations were carried out in order to
determine the influence exerted by some hydrodynamic and
physico-chemical factors upon the absorption process of
nitrogen oxides in the foam apparatus. The kinetics and
mechanism of the process were discussed. The influence
exerted by the gas rate in the apparatus upon the degree of
transformation of the nitrogen oxides to HNO_3 and the
absorption coefficient were investigated. With increasing
gas rate from 0.25-1.5 m/sec both processes are intensified.
The absorption coefficient K rises from 900-2360 m/hour. The
degree of transformation of nitrogen oxides into nitric acid
drops from 44 % to 24 % due to a decrease of the contact

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On the Rate and Mechanism of Nitric Acid Formation
Under Foam Conditions

SOV/156-58-4-47/49

between the phases. The dependence of the degree of transformation of NO_2 to HNO_3 , of the initial content of NO_2 , as well as the influence of the nitric acid concentration were investigated. The absorption of nitrogen oxides at an initial concentration of about 4 % NO rises up to 40 % HNO_3 on an increase of the nitric acid concentration. The increase is due to the catalytic effect of nitric acid during the oxidation of the nitrogen oxides. There are 4 figures and 6 references, 5 of which are Soviet.

ASSOCIATION: Kafedra tekhnologii neorganicheskikh veshchestv Leningradskogo tekhnologicheskogo instituta im. Lensovet (Chair of Technology of Inorganic Substances at the Leningrad Technological Institute imeni Lensovet)

SUBMITTED: May 10, 1958

Card 2/2

5(1, 2)

AUTHORS:

Pozin, M. Ye., Kopylev, B. A., Bel'chenko, G. V.

SOV/153-58-5-24/28

TITLE:

Bromine and Iodine Desorption by Air Under Foam Conditions
(Desorbtsiya broma i ioda vozdukhom pri pennom rezhime)

PERIODICAL:

Izvestiya vysshikh uchebnykh zavedeniy. Khimiya i khimicheskaya
tekhnologiya, 1958, Nr 5, pp 142-148 (USSR)

ABSTRACT:

Although the production of elementary bromine and iodine by blowing with air from the lye is more economical than other methods, the apparatus used for it is complicated and has a low capacity. The production using foam showed good results in other absorption and desorption processes (Ref 1) and therefore offers also good prospects for bromine and iodine. The method of iodine desorption by air will make possible the standardization of the apparatus of iodine - bromine plants, a simplified handling, and a drop of the prime cost as soon as it will be introduced to industry. There are, however, no data in the descriptions of this process (Refs 5-7) which describe the rate of the iodine desorption by air under different conditions. This was the reason for the present paper. The authors used the apparatus previously described by them (Ref 8). All its elements

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